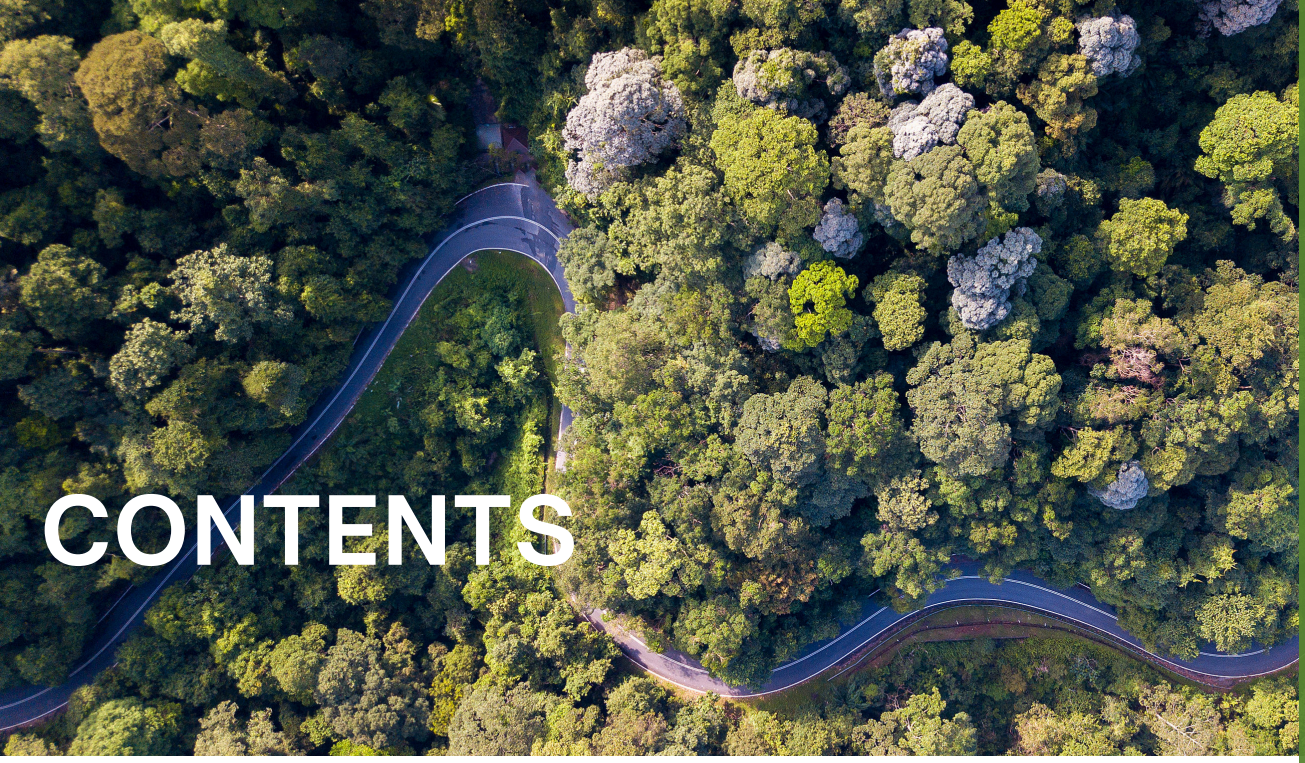
THE HABITAT PEOPLE

27th March 2025

AMSC 2 ST FITTICK'S PARK BIODIVERSITY PROTECTION AND ENHANCEMENT PLAN

ENERGY TRANSITION ZONE



CONTENTS

INTRODUCTION

This report details the ecological enhancement works and mitigatory measures for the restoration of St Fittick's Park in relation to the stage 1 environmental works for the Energy Transition Zone. This does not include any development works, and is purely for restoration of the area. Details of ecological enhancements, impacts and longer term management implications are detailed within this document.

As a firm THP has been involved in some capacity with St Fitticks park since 2017, and we are dedicated to ensuring the survival of the ecosystems within this site. This report has been detailed into sections on each habitat within Phase 1 habitat survey.

Coastal Wetland

Planning Permission in Principle (PPiP) (231371/PPP) was approved in January 2025 for 'Proposed business / industrial development (Class 4/5/6); road infrastructure; active travel connections; landscaping and environmental works including drainage and other infrastructure'.

This Biodiversity Protection and Enhancement Plan (BPEP) has been prepared to address Condition 9 of the PPiP approval in relation to an application for Approval of Matters Specified in Condition (AMSC) A.2 for a range of greenspace improvements to be implemented to mitigate for the loss of greenspace due to development of the industrial sites.

Proposed works within this AMSC application comprise:

- Re-alignment of the East Tullos Burn and associated works / landscaping including wetland creation and enhancement (including measures to improve water quality).
- Targeted elements of structural / strategic site landscaping and biodiversity enhancement where these can be integrated to existing park and would not limit / inhibit future development.
- Related pathway and access works to maintain connectivity through the site
- Linked off-site mitigations anticipated to include sports pitch re-location and enhancement and strategic landscaping.

Condition 9 – Biodiversity Plan
That no development shall take place of any individual plot / unit unless there has been submitted to and approved in writing by the planning authority by way of a matters specified in conditions application a detailed Biodiversity Protection and Enhancement Plan related to that plot/unit based on the principles and measures described in the BPEP Version 5, June 2024 and the ETZ Masterplan and including the requirements of Policy NE3: Natural Heritage in the adopted Aberdeen Local Development Plan 2023, or such other as is subsequently adopted.

The measures identified in the BPEP shall be implemented fully in accordance with the phasing plan agreed under condition 4.

This BPEP builds upon the principles and measures established in the overarching BPEP (ECOS, Version 5, June 2024) and masterplan approved with the PPiP application, in addition to demonstrating compliance with Policy NE3: Natural Heritage of the Aberdeen Local Development Plan 2023.

These measures will be delivered in accordance with the phasing plan approved under Condition 4. The approach ensures that biodiversity is protected and enhanced through the proposed development and that no significant adverse ecological impacts arise.

As the development progresses, the BPEP will be reviewed and updated at each phase, and a submitted as part of further AMSC applications. This will ensure a clear plan for biodiversity enhancement at each phase, which is fully integrated to detailed development proposals across the site.

SITE DESCRIPTION

St Fittick's Park is a coastal semi-urban park on the edge of the district of Torry, within Aberdeen. The Park has a range of habitats, with reedbeds, wet grasslands, dry grasslands and both wet and mixed woodlands.

Wetlands

The wetlands run through the centre of the site, being the route of the East Tullos Burn, The Main pool to the west is heavily stagnated with common reed, before running into more marginal vegetation going under a wooden bridge in the centre of the site. The burn then feeds into a secondary channel with a small offshoot pool, before running through intermixed riparian herbaceous species and smaller reedbeds.

Grasslands

Currently the grasslands on site are low quality and lacking any significant diversity. Sward height varies significantly from short mown amenity grasslands to taller 'wild' grasslands adjacent to the western reedbed.

Woodlands

The wet woodlands south of the burn are the highest quality habitat on site, with mixed areas of willow and alder woodland, interspersed with a diverse understory. The remaining mixed woodland is both native broadleaves and non-native fast growing conifers, which have reduced much of the natural diversity of the understory.

Amenity Areas

The western half of the site is largely free of habitat for human amenity services. However there are also several small, more functional habitats in this space. These include areas of an urban pollinator mix, scattered trees for aesthetic value, and mixed non-native shrubs. Whilst the ecological value of these areas is limited, there is some minor value from pollen availability and increased habitat connectivity.

UKHAB CLASSSIFICATION GOALS

By the end of this phase of works, the restoration of the following areas of each habitat is targeted:

UK Hab classification	Habitat type	Additional area of habitat (m2)
F2d	Aquatic marginal vegetation	10,151
F2e	Reedbed	N/A - Existing
G1a	Lowland dry acid grassland (coastal grassland)	9,625.1
G3a	Lowland meadows	7,892.9
G3c	Other neutral grassland	Negligable
H3h	Mixed scrub	Negligable
R2b	Other Rivers and streams	8,568
W1g	Other broadleaved woodland	Negligable

FIGURE 1: AREAS OF HABITAT RESTORATION
V01: COASTAL GRASSLAND
V02: INLAND GRASSLAND

UK Hab classification	Habitat type	Additional area of habitat
F2d	Aquatic marginal vegetation	10,151 sqm
F2e	Reedbed	N/A (existing)
G1a	Lowland dry acid grassland (coastal grassland)	9,525.1 sqm
G3a	Lowland meadows	7,892.9 sqm
R2b	Other Rivers and streams	8,568 sqm

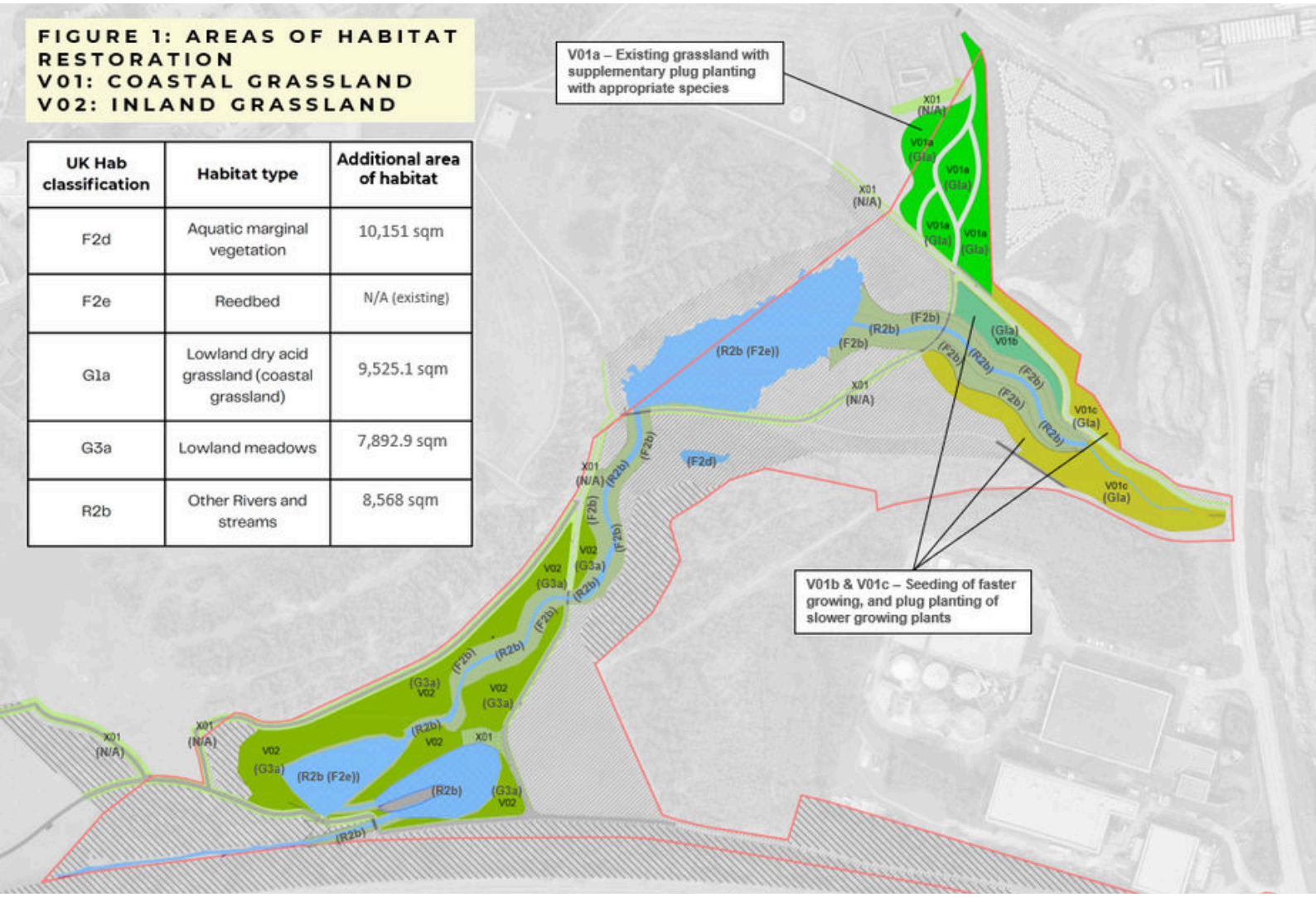


FIGURE 2: AREAS OF LANDSCAPE IMPROVEMENT
T's: Various Tree Species
V03: Urban Pollinator Wildflower
X01: Amenity Lawn Mix
X02: Football Field Mix
Y01: Amenity Shrub & Bulb Mix

UK Hab classification	Habitat type	Additional area of habitat
W1g	Other broadleaf woodland	negligible
G3c	Other neutral grassland	negligible
H3h	Mixed scrub	negligible

CORE PRINCIPLES

ONE SIMPLE BPEP AIM

Protection, restoration and enhancement of ecosystems to deliver long term sustainability and Biodiversity Net Gain (BNG).

ETZ APPROACH TO ACHIEVE THIS AIM

- Establish location and extent of “irreplaceable” habitats.
- Identify priority habitats.
- Determine species populations, especially protected ones.
- Compensate for habitat impacts.
- Provide actions to enhance biodiversity, increase natural capital and increase the range of ecosystem services.
- Contribute to ecosystem restoration.

A PRINCIPLED APPROACH

Best practice will be followed at all phases of the ETZ project and the following principles will be adopted by all parties from the outset.

G. GRASSLAND

G1 - Non-amenity grassland seed mixes must be native, of local provenance and concur with a Phase 1 B2.2 and NVC MG1 or MG5. Specialist salt-tolerant fescue-based seed mixes will be required for coastal edge of Zone B and a Phase 1 B1.2 acid grassland, NVC U4, seed mix for northern parts of Zone C.

G2 - Commercial seed mixes must be customised i.e. unsuitable species to be removed by the supplier. This will maintain the integrity of natural plant ranges and genetics of native species. The latest BSBI Plant Atlas found that non-native species outnumber native species in the UK for the first time.

G3 - Amenity grassland should include flowering lawn mixes and those areas sown must be managed appropriately.

CORE PRINCIPLES

W. WATERCOURSES

W1 - Watercourses should be retained in a natural form

W2 - Canalised or ditched watercourses should be reprofiled to increase micro habitat diversity

W3 - Culverting watercourses should be avoided, and, where necessary, limited to essential road crossings.

W4 - SUDS basins and ponds must be sown with native species or left to natural colonisation.

Male European otter *Lutra lutra*

WETLANDS

PLANTLIFE - ENHANCEMENTS

The wetlands currently have moderately diverse plant life, with the only known remaining population of Gypsywort in the region. Much of this diversity has however been stagnated and been largely reduced to an overgrown reedbed. With the realignment of the wetlands to a different route, a range of opportunities are presented for botanical enhancement and restoration. Whilst reedbeds are a rare and critical habitat, there needs to be a regular maintenance schedule in place to ensure that they do not either outcompete other flora, or grow so large that they begin forming into land - thus disrupting the flow of water.

A comprehensive locally designed botanical enhancement plan will reintroduce several regionally extinct or critically endangered species to the wetlands at St Fitticks. This list can be found in Appendix 1.

The westernmost wetland, flowing under the bridge, is by far the most affected by the stagnation of these wetlands. the opening up of this habitat will greatly benefit the wetland ecosystem here. As the reedbed re-establishes here over time, careful management will allow the new plant life to thrive in this space.

Ragged robin *Silene flos-cuculi*

OTTER HOLT

Otters are known to pass through the area of St Fitticks, but these sightings are sporadic and do not indicate long term presence or utilisation of the wetland environment in the park. By installing an artificial otter holt following the wetland restoration works, the limiting factor for the species to utilise and thrive in these wetlands is removed. There is already abundant amphibian life and wetland bird species present on site, so with a space to sleep and breed, the hope is that these semi-aquatic apex predators would take up residence on a more permanent basis.

Once the waterways are healthier following both the rerouting and sediment catchment works, otter will also be more likely to utilise a greater abundance of available food.

MINK RAFT

Following on from the encouragement of otters, it may be necessary to install a mink raft in order to control this invasive predator. Mink have been seen regularly in the local area, and are a major predator of both ground dwelling mammals and birds. Smaller than otters, they are extremely good at hiding in waterways and eradicating large portions of a wetland's birdlife.

Mink rafts are autonomous structures that sit stationary in the wetland and have a pressure activated sensor. Once the sensor is triggered, it is checked by licenced personnel as part of the local management scheme, within 12 hours. It is imperative that the wetlands are protected from invasive species such as this, and this low cost no maintenance raft would be a very effective way of adding to it.

Otters are known to outcompete and push mink out of an area, and so over time as the larger native predator better establishes, the need for this raft will become less necessary.

GYPSYWORT CONSERVATION

Already mentioned above, the wetlands in St Fittick's Park are home to the largest, and as far as this report is aware, only known population of gypsywort in North East Scotland. This plant was once an uncommon but relatively frequent species in the local area, but has since drastically declined in both range and population. It is therefore imperative that this species be preserved and spread around both the park and the wider city. Both plants grown on from seed of this species collected in prior years, and from seed that will spread from the plant's increased survival chances once the reedbeds are better maintained.

Ideally these plants can be used in future to collect seed and restore the species to other locations around the region, contributing to its conservation.

Gypsywort *Lycopus europaeus*

SAND MARTIN BANK

Sand martins are a rapidly declining migrant passerine species that visits the city in good numbers every year. However, due to the decline in habitat quality at Girdleness from the cliffside slumping, the breeding population local to Torry has declined in recent years. Although some sand martins do forage over the wetlands in St Fitticks due to their higher invertebrate populations, this has also dropped in recent years.

The installation of an artificial sand martin bank would both help mitigate this and provide an interesting and valuable feature to the park. The bank itself has a life span of fifty years, so can support generations of these birds to be enjoyed and watched within the space for both people and birds.

These structures can be accessed from the back, allowing for any chicks to be ringed, which will add to the story of the space and the birds that live there on migration. The holes also need to be filled with sand on an annual basis prior to the birds arriving, which could be done as an educational activity with local schools.

Sand martin bank being installed at RGU Waterside Farm, 4km west of St Fitticks

METHODOLOGIES

The restoration of the wetlands will involve substantial areas of open ground following Phase 1, which will give ample opportunity for both plants and seeds to be utilised in the reintroduction works. Both edge ground and open water plants survive far better as plug or potted plants, as seed is not recommended. The exception to this is lesser butterfly orchid, which must be introduced as seed into the wet grassland environment in order to germinate. It is not possible to reintroduce this species as a plant grown ex-situ.

Plants from the old channel should be re-used where possible, with excavators moving existing areas of high quality vegetation from the old channel to line the new route of the burn. This saves wasting an already developing ecosystem, as well as transplanting many of the invertebrates that would otherwise be lost from the diversion of the burn. For example, there is abundant purple loosestrife in these channels, which are an excellent source of pollen that would otherwise be lost.

Purple loosestrife *Lythrum salicaria*

COASTAL GRASSLANDS

PLANTLIFE - ENHANCEMENTS

The existing higher quality habitat around St Fitticks is primarily coastal grassland. As the surrounding coastal grasslands have become more utilised by humanity over the past 50 years, these habitats have degraded to the point where a number of species are at risk of extinction from the city should measures not be taken. This is due to the fragmentation of higher quality habitat, largely centred around the coastal path but also at Girdleness, being too narrow to support higher species richness.

These habitats would be created from a mixture of seed and plants (where appropriate to each new habitat on site - the northern section of the coastal grassland being entirely plug planting, the southern section being dominated by seed), sourced from the surrounding countryside. This protects and maintains the genetic provenance of the species to an extremely local level, which is important for ensuring local strains of these plants survive. These habitats will be focussed on the spaces that are less exposed than the coastal heathlands, but not as sheltered as the inland grasslands or woodlands. St Fitticks lies in a critical location between the habitat on the coastal path, and the larger high quality coastal grasslands at Girdleness. By creating this habitat V01a-Vo1c (see fig. 1), the distance that pollen, and pollen laden insects have to travel is over halved. A species list for wildflowers can be found in Appendix B.

SUPPORT FOR NATIVE BUTTERFLIES & POLLINATORS

By implementing the above, these habitats can contribute to allowing species such as dark green fritillary butterfly (*Speyeria aglaja)* which sporadically breeds in the coastal grasslands with common dog violet north of cove, and slightly further inland in Tullos Wood. Introducing this species of host plant (for example) would allow the butterfly to better thrive in the city and disperse to sites closer to the mouth of the River Dee.

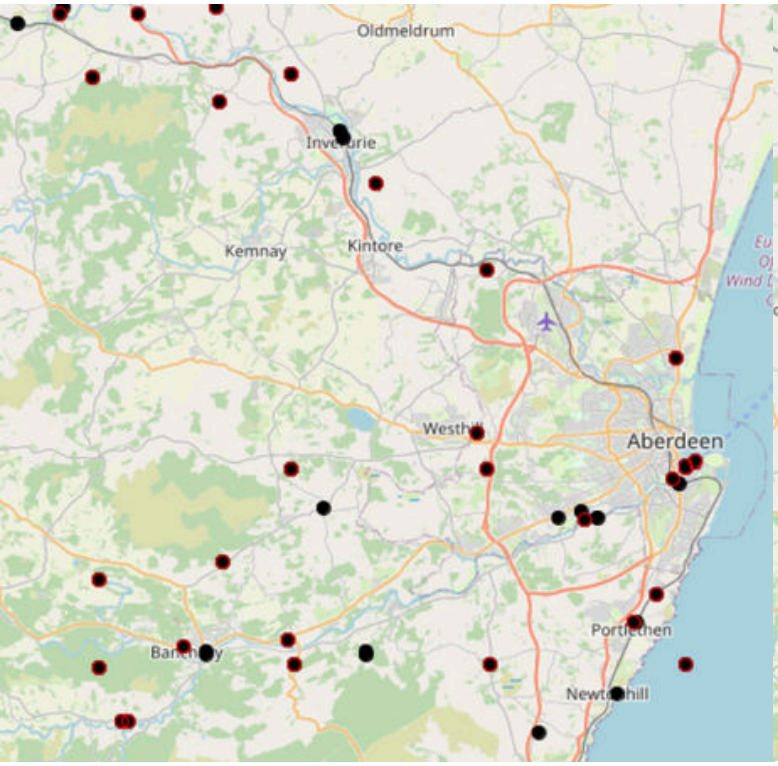
Many other species of insect and pollinator will benefit in a similar manner. A list of some of the more notable host plants included in the planting plan and the insect species they support is listed below:

Plant common name	**Plant scientific name**	Total species of butterfly & moth supported	**Comments**
Lesser bird's foot trefoil	*Lotus corniculatus*	30	Main foodplant of common blue butterfly
Lady's Bedstraw	*Galium verum*	30	Supports both lesser and common elephant hawk moths
Red campion	*Silene dioica*	11	
Sea campion	*Silene uniflora*	13	
Goldenrod	*Solidago virgaurea*	21	Important foodplant for both Ruby tigers and currant clearwing moths
Heather spp.	*Calluna vulgaris & Erica spp.*	80	Not all species will utilise heathers by the coast, but some insects only survive on heathers in wild areas of lowlands - a rarity in the modern landscape.
Vetch species	*Lathyrus & Pithum spp.*	7	Combined total from all vetch species to utilise.
Plantains	*Plantago lanceolata, maritima & Major*	78	Combined across all three species.
Wild primrose	*Primula vulgaris*	22	
Commen sorrel	*Rumex acetosa*	24	Important foodplant for small copper butterfly

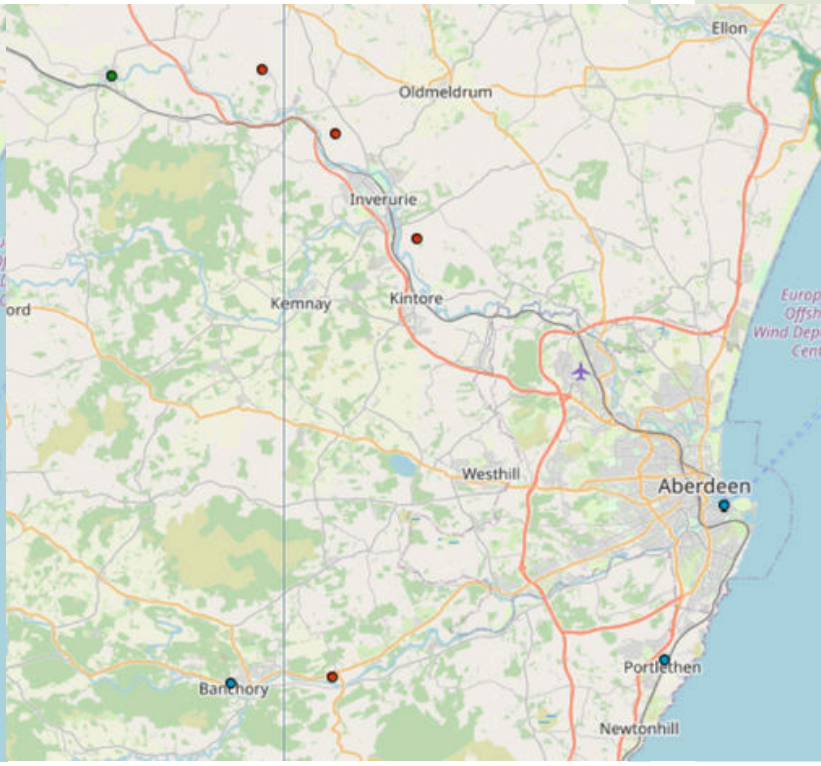
This list was compiled using 'Foodplant list for the caterpillars of Britain's Butterflies and Larger Moths' by Tim Crafter and reflects the best data available on each plant genera.

LOCAL CONSERVATION AND HABITAT CONNECTIVITY

As previously mentioned, a number of plant species, such as meadow crane's-bill, yellow toadflax and goatsbeard have rapidly declined in numbers over the past 50 years in our region.



Species range map of yellow toadflax *Linaria vulgaris* using data from the 1980 - 1989. Black points indicate the species presence.



Species range map of yellow toadflax *Linaria vulgaris* using data from the 2016-2025. Coloured points represent presence in different years in that period.

For *L. vulgaris* in the example above, distances between populations has now become so extreme that there needs to be direct intervention to bolster the capacity of this plant to survive. By planting at St Fitticks we hope to create a far larger and more stable population of this plant in Torry, where most of the local population in the region survives. This is just one example of many plant species in the same predicament that can begin spreading outwards into the surrounding countryside again to recolonise lost ground.

Having worked on these species extensively, it can be said that this is not due to a lack of available data or searching, but rather because these species are quietly disappearing from our local landscape. This phase of works will enable a first step in reversing this decline.

Maps produced using National Biodiversity Network Atlas Database

COASTAL GRASSLANDS

METHODOLOGIES

The creation of these habitats will vary greatly depending on the existing ground on site. The western grasslands (allocated as V01a, V01b and V01c on Figure 1) are already highly suitable coastal grasslands-in-waiting, being mown into the ground every year. The existing grassland in V01a has many of the surrounding environment's coastal grassland species already (e.g. harebell, autumn hawkbit), and will just need supplementary plug planting with appropriate species in order to establish a highly successful habitat.

V01b and V01c however will require extensive seeding and planting in order to become of a similar quality. The space adjacent to the new burn in particular in V01c will by the nature of the works create large areas of open space, so will require both seeding of earlier colonising species and plug planting of slower growing plants to ensure they are not outcompeted. This will allow for the habitat establishment much faster than if all species were planted as seed. It also more accurately represents the mature coastal grasslands of the surrounding environment. This method more rapidly addresses the conservation needs of the species in need of conservation within the local area.

Small copper butterfly *Lycaena phlaeas*

INLAND GRASSLANDS

PLANTLIFE - ENHANCEMENTS

Similar to the coastal grasslands and wetlands, the planting of the area in the east allocated as V02 will constitute the more sheltered grassland on site. These are primarily to the west and north of the wetlands (V02 in figure 1), in spaces adjacent to paths, woodlands and in spaces where the waterbody is less accessible.

This is a more traditional meadow species mix, less focussed on increasing the range of all local plant species, but where appropriate still attempting to encourage them. These attractive habitats will complement each other well, over time the point of separation from their inception gradually blending as plants spread from one habitat to the other along the gradient of conditions in which they can survive. This will likely take decades to fully complete due to the slow nature of change in grassland environments. Details of the species list can be found in Appendix C.

METHODOLOGIES

Given that the existing grasslands are both undergrazed by large ungulates and overgrazed by deer, it is recommended to start from scratch across V02. This can be done by clearing the existing vegetation. Seeding of faster growing species and a wider range of grasses can then be completed, with plug plants from slower germinating plants being introduced at the same time.

These should be monitored for twelve months, on a three monthly rotation following this work to ensure annual weeds do not take hold and outcompete the newly establishing habitat.

APPENDIX A

WETLAND PLANTING SPECIES LIST

Common Name	Scientific Name
Bittersweet	*Solanum dulcamara*
Bladder sedge	*Carex vesicaria*
Blue water-speedwell	*Veronica anagallis-aquatica*
Bog bean	*Menyanthes trifoliata*
Brooklime	*Veronica beccabunga*
Carnation sedge	*Carex panicea*
Common comfrey	*Symphytum officinale*
Common reedmace	*Typha latifolia*
Common valerian	*Valeriana officinalis*
Cuckooflower	*Cardamine pratensis*
Devil's-bit scabious	*Succisa pratensis*
Giant bellflower	*Campanula latifolia*
Greater bird's foot trefoil	*Lotus pedunculatus*
Gypsywort	*Lycopus europaeus*
Hemp agrimony	*Eupatorium cannabinum*
Hemlock water dropwort	*Oenanthe crocata*
Least bur-reed	*Sparganium minimum*
Lesser butterfly orchid*	*Platanthera bifolia*
Lesser marshwort	*Apium inundatum*
Lesser spearwort	*Ranunculus flammula*
Mare's tail	*Hippuris vulgaris*

*Introduced as seed to wetter grassland edges - will take upwards of 5 years to germinate

APPENDIX A

WETLAND PLANTING SPECIES LIST

Common Name	Scientific Name
Marsh arrowgrass	*Triglochin palustris*
Marsh bedstraw	*Galium palustre*
Marsh cinquefoil	*Comarum palustre*
Marsh foxtail	*Alopecurus geniculatus*
Marsh pennywort	*Hydrocotyle vulgaris*
Marsh ragwort	*Jacobaea aquatica*
Marsh speedwell	*Veronica scutellata*
Marsh woundwort	*Stachys palustris*
Meadowsweet	*Filipendula ulmaria*
Meadow buttercup	*Ranunculus acris*
Mudwort	*Limosella aquatica*
Nodding bur-marigold	*Bidens cernua*
Pedunculate water starwort	*Callitriche brutia*
Pignut	*Conopodium majus*
Ragged robin	*Silene flos-cuculi*
Skullcap	*Scutellaria galericulata*
Slender sedge	*Carex lasiocarpa*
Sneezewort	*Achillea ptarmica*
Tufted forget-me-not	*Myosotis laxa*
Tufted hair grass	*Deschampsia cespitosa*
Water lobelia	*Lobelia dortmanna*
Water sedge	*Carex aquatilis*
Wild angelica	*Angelica sylvestris*

APPENDIX B

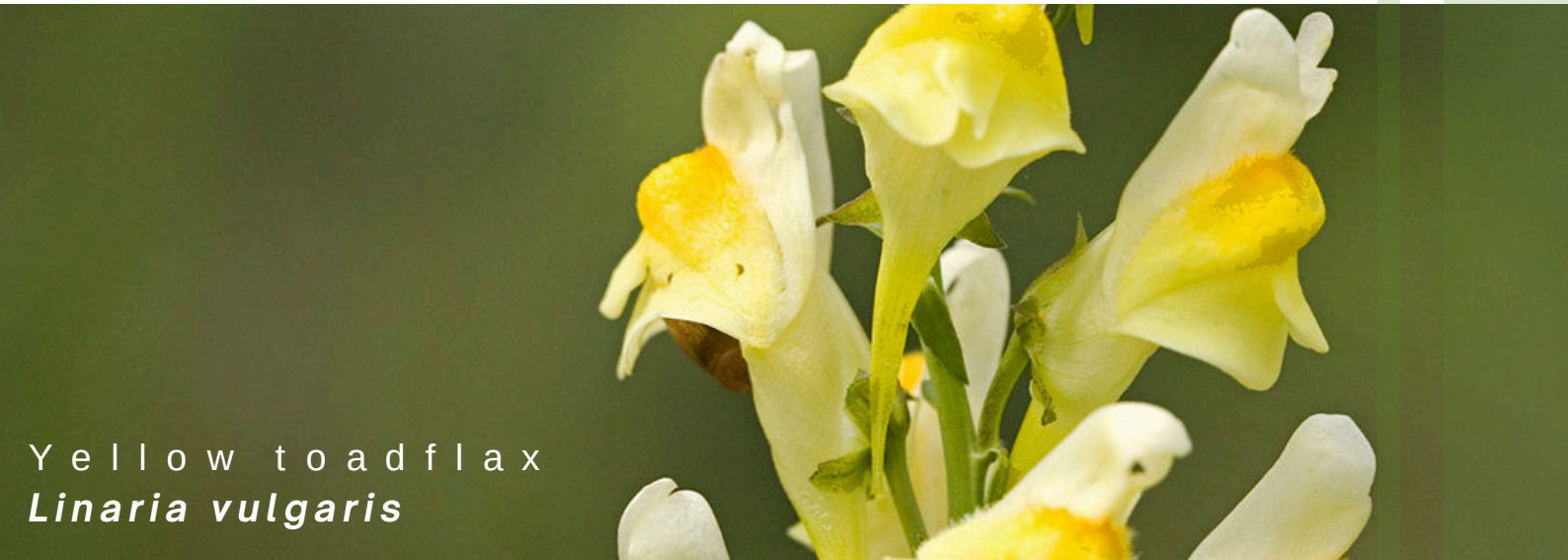
COASTAL GRASSLAND PLANTING SPECIES LIST

Common Name	Scientific Name
Angelica	*Angelica sylvestris*
Autumn Hawkbit	*Leontodon autumnalis*
Bloody Cranesbill	*Geranium sanguineum*
Bush Vetch	*Vicia sepium*
Cat's Ear	*Hypochaeris radicata*
Coltsfoot	*Tussilago farfara*
Common Dog Violet	*Viola riviniana*
Dove's-foot cranesbill	*Geranium molle*
Eyebright	*Euphrasia officinalis*
Field Scabious	*Knautia arvensis*
Fine-leaved Vetch	*Vicia tenuifolia*
Goatsbeard	*Tragopogon pratensis*
Goldenrod	*Solidago virgaurea*
Great mullein	*Verbascum thrapsus*
Great wood rush	*Luzula sylvatica*
Hairy Vetch	*Vicia villosa*
Harebell	*Campanula rotundifolia*
Heath bedstraw	*Galium saxtile*
Kidney Vetch	*Anthyllis vulneraria*
Lady's Bedstraw	*Galium verum*
Lesser Bird's Foot Trefoil	*Lotus corniculatus*
Lesser Knapweed	*Centaurea nigra*
Lesser Stitchwort	*Stellaria graminea*

APPENDIX B

COASTAL GRASSLAND PLANTING SPECIES LIST

Common Name	Scientific Name
Meadow Buttercup	*Ranunculus acris*
Meadow Cranesbill	*Geranium pratense*
Meadow Vetchling	*Lathyrus pratensis*
Mousear	*Cerastium fontanum*
Oxeye Daisy	*Leucanthemum vulgare*
Perennial Sow Thistle	*Sonchus arvensis*
Primrose	*Primula vulgaris*
Red campion	*Silene dioica*
Ribwort Plantain	*Plantago lanceolata*
Rough Hawkbit	*Leontodon hispidus*
Silverweed	*Potentilla anserina*
Small Carex	*Carex hirta*
Tormentil	*Potentilla erecta*
White Clover	*Trifolium repens*
Yarrow	*Achillea millefolium*
Yellow Rattle	*Rhinanthus minor*
Yellow Toadflax	*Linaria vulgaris*



Yellow toadflax
Linaria vulgaris

APPENDIX C

INLAND GRASSLAND PLANTING SPECIES LIST

Common Name	Scientific Name
Angelica	*Angelica sylvestris*
Autumn Hawkbit	*Leontodon autumnalis*
Bush Vetch	*Vicia sepium*
Cat's Ear	*Hypochaeris radicata*
Common Sorrel	*Rumex acetosa*
Cowslip	*Primula veris*
Lady's bedstraw	*Galium verum*
Lesser Bird's Foot Trefoil	*Lotus corniculatus*
Lesser Knapweed	*Centaurea nigra*
Lesser Stitchwort	*Stellaria graminea*
Male Fern	*Dryopteris filix-mas*
Meadow Buttercup	*Ranunculus acris*
Meadow Cranesbill	*Geranium pratense*
Meadow Vetchling	*Lathyrus pratensis*
Oxeye daisy	*Leucanthemum vulgare*
Primrose	*Primula vulgaris*
Red campion	*Silene dioica*
Red Clover	*Trifolium pratense*
Ribwort Plantain	*Plantago lanceolata*
Selfheal	*Prunella vulgaris*
Silverweed	*Potentilla anserina*
Spear Thistle	*Cirsium vulgare*
Tansy	*Tanacetum vulgare*

APPENDIX C

INLAND GRASSLAND PLANTING SPECIES LIST

Common Name	Scientific Name
Tufted Vetch	*Vicia cracca*
Wild carrot	*Daucus carota*
Yarrow	*Achillea millefolium*
Yellow Rattle	*Rhinanthus minor*
Yellow Toadflax	*Linaria vulgaris*